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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/997,720	11/30/2001	James L. Baggot	KCX-444 (16145)	4084

7590 06/27/2003  
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EXAMINER

TAWFIK, SAMEH

ART UNIT	PAPER NUMBER
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3721

DATE MAILED: 06/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Applicati n N .

09/997,720

Applicant(s)

BAGGOT ET AL.

Examin r

Sameh H. Tawfik

Art Unit

3721

-- The MAILING DATE f this communication appears n the c ver sheet with the correspondenc address --

## Peri d for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 06 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4 & 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

Art Unit: 3721

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election without traverse of Invention I (claims 1-21) in Paper No. 7 is acknowledged.

### ***Specification***

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. For example "System for perforating a web".

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 11, line 1, the phrase "perforating or severing" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "or"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, and 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Langhans (5,684,617).

Langhans discloses an apparatus for perforating a web comprising a web having a first edge and a second edge and at least one laser mounted and being configured for directing a beam of light upon the surface of the web to form at least one severed portion upon the web (Fig. 1 and column 3, lines 15 and 16). Langhans does not disclose a mechanism for supporting a web nor a frame adjacent to the web to carry the laser source. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified Langhans's apparatus by having a mechanism for supporting a web ~~per~~<sup>AND</sup> a frame adjacent to the web to carry the laser source, as a matter of engineering design choice, since the examiner takes an official notice that the mentioned mechanism for supporting a web nor a frame adjacent to the web to carry the laser source are old, well known, and available in the art.

Regarding claim 2: Langhans discloses that the apparatus is configured to sever the web continuously from the first edge to the second edge (Fig. 1).

Regarding claims 7-10: Langhans does not disclose the mechanism for supporting the web comprises an air foil, rollers, and/or carrier fabric. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified Langhans's apparatus by having a mechanism for supporting a web comprises an air foil, rollers, and/or carrier fabric, as a matter of engineering design choice, since the examiner takes an official notice that the mentioned mechanism for supporting a web comprises an air foil, rollers, and/or carrier fabric are old, well known, and available in the art.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Langhans (5,684,617) in view of Balster et al. (6,038,487).

Langhans does not disclose that the laser provides a light beam upon the web at an angle that deviates from the cross direction. However, Balster discloses a similar perforating apparatus comprising perforating the web at an angle that deviates from the cross direction (Fig. 7 and column 3, lines 43-44).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified Langhans's apparatus of severing or perforating a paper web by perforating the web at an angle that deviates from the cross direction, as suggested by Balster, in order to improve and provide a web processor for performing cross direction operations on a moving web of material, such as paper (column 1, lines 30-38).

Claims 3- 6 and 12-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Langhans (5,684,617) in view of Bingener et al. (5,444,210).

Langhans discloses that the laser is configured to form a plurality of severed portion upon the web in interrupted sequence (Fig. 1). Langhans does not disclose that creation of a perforation line in the cross direction of the web. However, Bingener discloses a similar perforating apparatus comprising a perforation line in the cross direction of the web (Figs. 2 and 3; via laser beam 10).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified Langhans's apparatus of severing or perforating a paper web by having a perforation line in the cross direction of the web, as suggested by Bingener, in order to get a cross cutting of the strip sections at a very high cutting accuracy and a high quality

Art Unit: 3721

of the cutting edges of any desired contour are achieved at a high cutting speed (column 1, lines 30-34).

Regarding claim 4: Langhans discloses the laser is adapted to form multiple perforation lines positioned generally parallel to each other (Fig. 1).

Regarding claims 5 and 13: Langhans does not disclose a plurality of lasers are employed whereby each laser acts upon only a portion of the cross directional width of the web. However, Bingener discloses that a plurality of lasers are employed whereby each laser acts upon only a portion of the cross directional width of the web (Figs. 2 and 3; via laser beam 10).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified Langhans's apparatus of severing or perforating a paper web by having a plurality of lasers are employed whereby each laser acts upon only a portion of the cross directional width of the web, as suggested by Bingener, in order to get a cross cutting of the strip sections at a very high cutting accuracy and a high quality of the cutting edges of any desired contour are achieved at a high cutting speed (column 1, lines 30-34).

Regarding claim 6: Langhans discloses that the web is apportioned into a plurality of zones (Fig. 1), the zones being positioned along the machine direction of the web, wherein a plurality of lasers are provided such that each laser corresponds to a zone upon the web, such that each successive laser is directed to provide a light beam upon a corresponding and successive zone of the web, see for example (Fig. 1; via two beams runs through lens 10).

Regarding claim 14: Langhans discloses at least three zones are provided upon the web (Fig. 1).

Art Unit: 3721

Regarding claims 15-17: Langhans nor Bingener disclose the speed of travel of the web upone the conveying means is greater than about 3,000; 3,500; and/or 4,000 feet per second. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified Langhans's apparatus by having the speed of travel of the web upone the conveying means is greater than about 3,000; 3,500; and/or 4,000 feet per second, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Regarding claims 18-20: Langhans does not disclose the mechanism for supporting the web comprises an air foil, rollers, and/or carrier fabric. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified Langhans's apparatus by having a mechanism for supporting a web comprises an air foil, rollers, and/or carrier fabric, as a matter of engineering design choice, since the examiner takes an official notice that the mentioned mechanism for supporting a web comprises an air foil, rollers, and/or carrier fabric are old, well known, and available in the art.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claim 12 above, and further in view of Balster et al. (6,038,487).

Langhans does not disclose that the laser provides a light beam upon the web at an angle that deviates from the cross direction. However, Balster discloses a similar perforating apparatus comprising perforating the web at an angle that deviates from the cross direction (Fig. 7 and column 3, lines 43-44).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified Langhans's apparatus of severing or perorating a paper

Art Unit: 3721

web by perforating the web at an angle that deviates from the cross direction, as suggested by Balster, in order to improve and provide a web processor for performing cross direction operations on a moving web of material, such as paper (column 1, lines 30-38).

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Olivieri 6427420 and Withrow 4782208 disclose different method of perforating a web by using laser beams.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sameh H. Tawfik whose telephone number is (703) 308-2809. The examiner can normally be reached on Tuesday - Friday from 8:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rinaldi Rada can be reached on (703) 308-2187. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3579 for regular communications and (703) 308-7769 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1148.

ST.  
June 18, 2003



**EUGENE KIM  
PRIMARY EXAMINER**